

Electronic Supplementary Information for

**Design and gelation behaviors of cholesterol-based derivatives as
organogelators: An investigation of the correlation between
molecular structures and gelation behaviors**

Hai-Kuan Yang*, Xiao-Min Wang, Lin-Lin Liu, Han-Xu Shi

Department of Chemistry, School of Science, North University of China, Taiyuan

030051, Shanxi, China. E-mail: haikuanyang@nuc.edu.cn

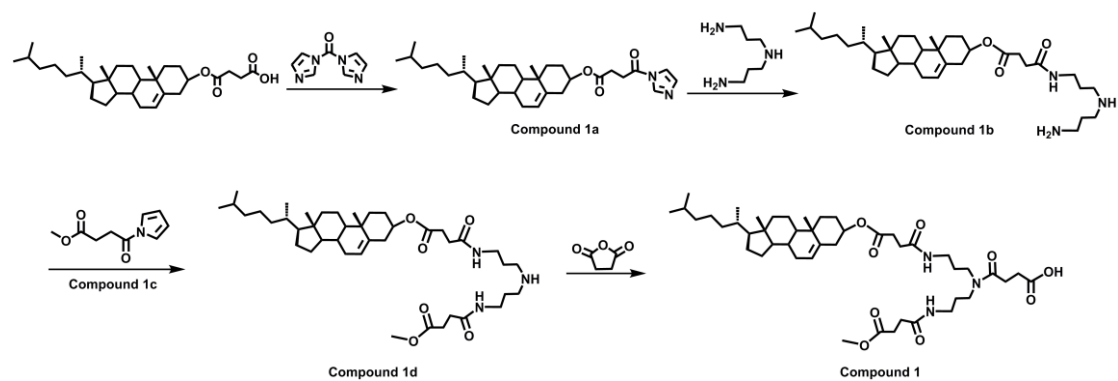


Figure S1. Synthetic route of compound 1.

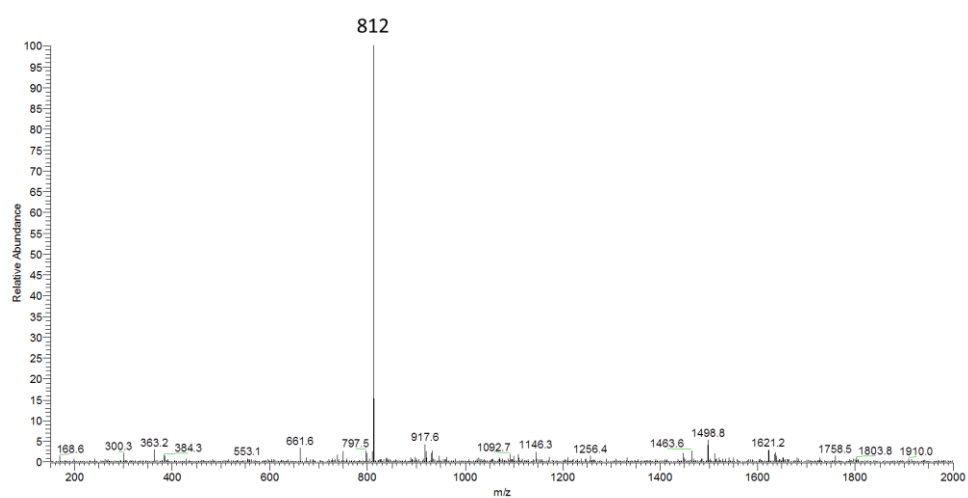


Figure S2. ESI-MS spectrum of compound 1. $[\text{M}-\text{H}]^-$: 812 g mol^{-1} .

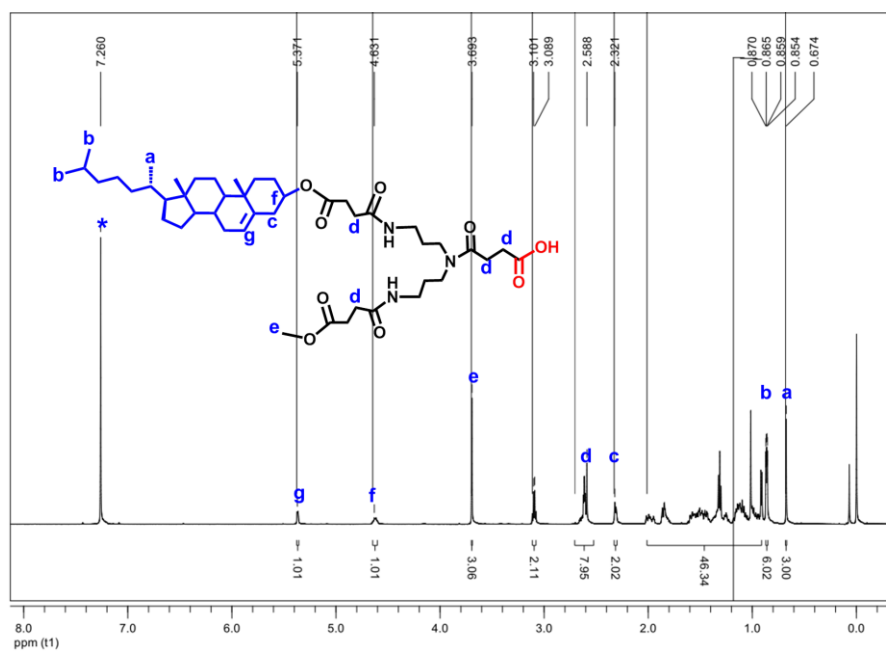


Figure S3. ^1H NMR spectrum of compound 1 in CDCl_3 .

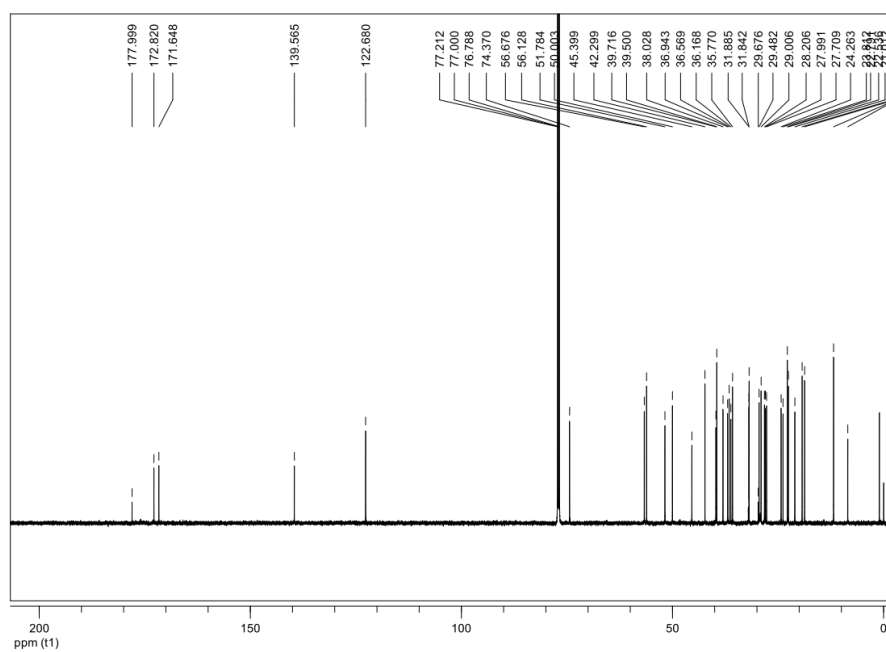


Figure S4. ^{13}C NMR spectrum of compound 1 in CDCl_3 .

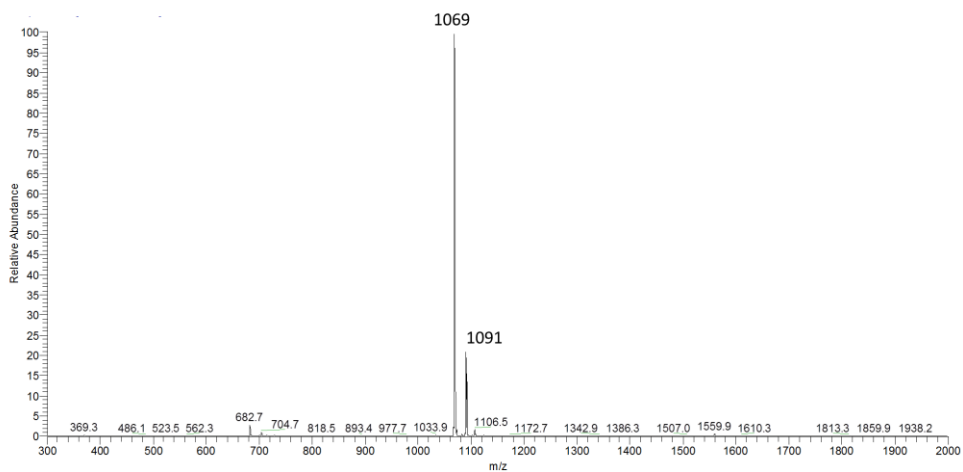


Figure S5. ESI-MS spectrum of compound 2. $[M+H]^+$: 1069 g mol^{-1} , $[M+Na]^+$: 1091 g mol^{-1} .

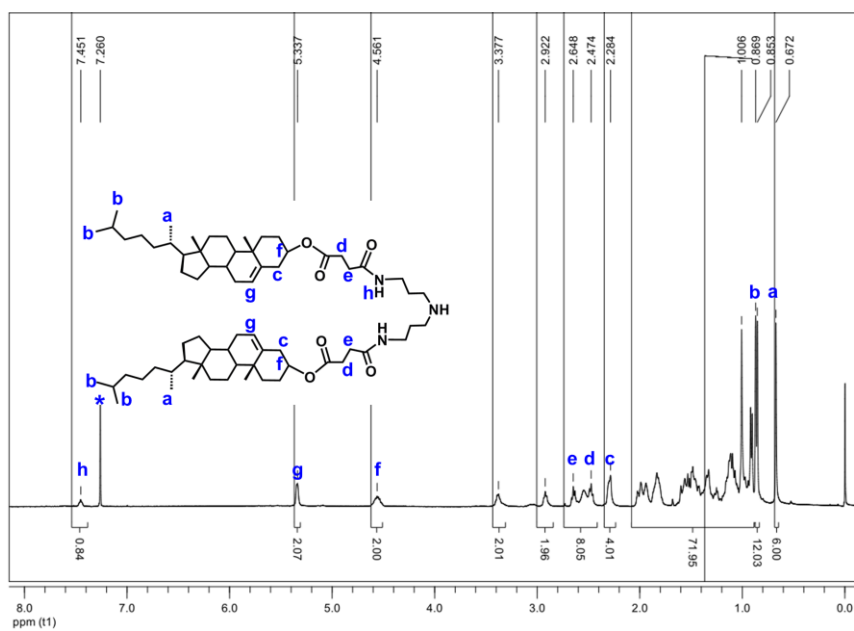


Figure S6. ^1H NMR spectrum of compound 2 in CDCl_3 .

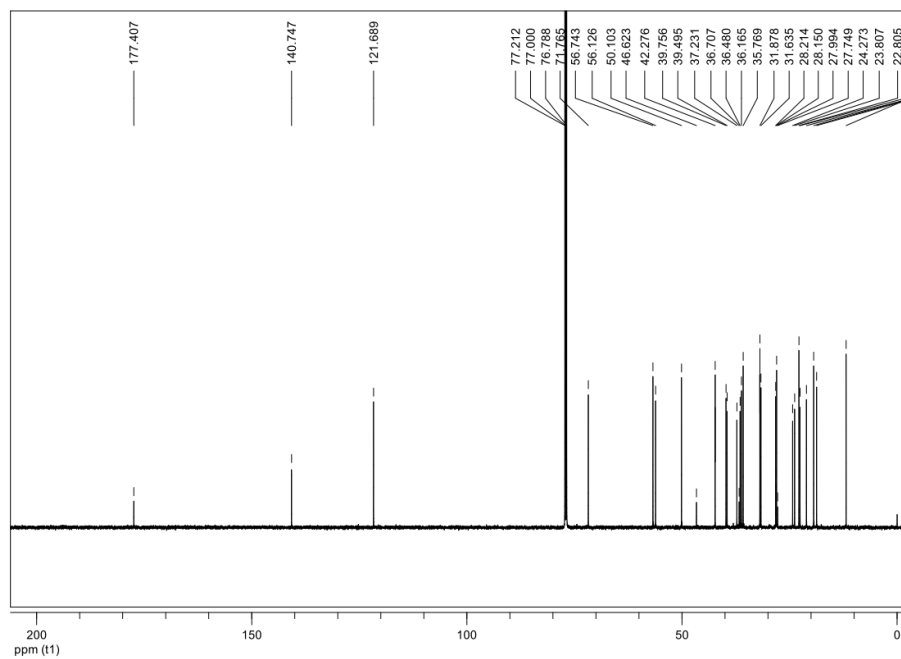


Figure S7. ^{13}C NMR spectrum of compound 2 in CDCl_3 .

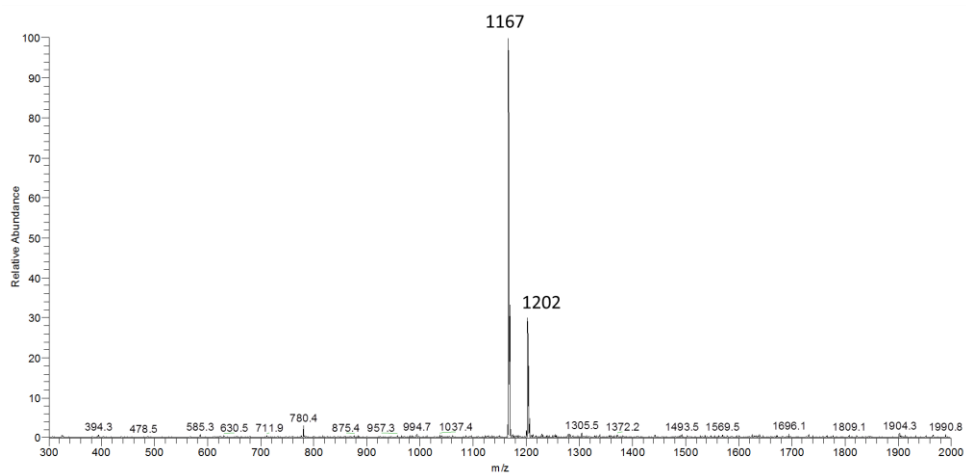


Figure S8. ESI-MS spectrum of compound 3. $[\text{M}-\text{H}]^-$: 1167 g mol^{-1} , $[\text{M}+\text{Cl}]^-$: 1202 g mol^{-1} .

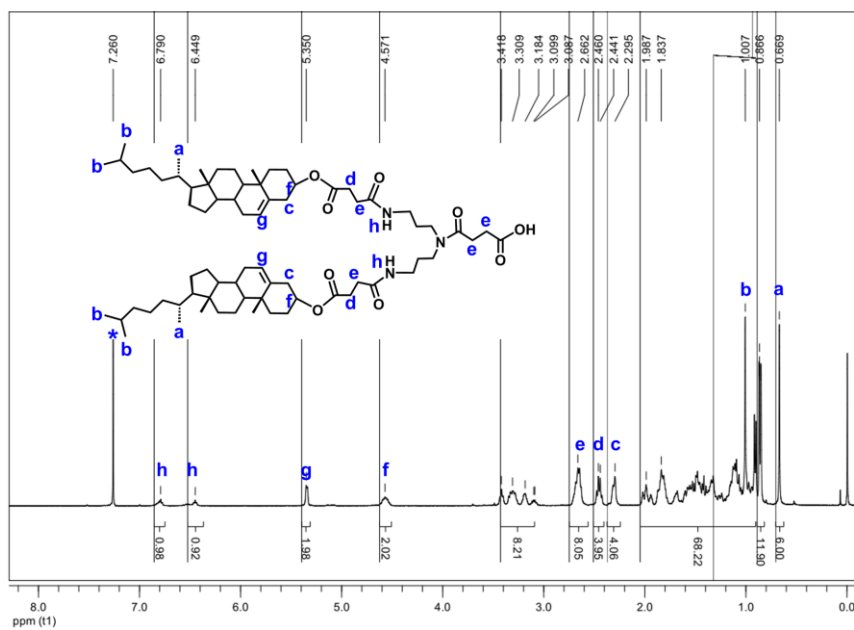


Figure S9. ¹H NMR spectrum of compound 3 in CDCl₃.

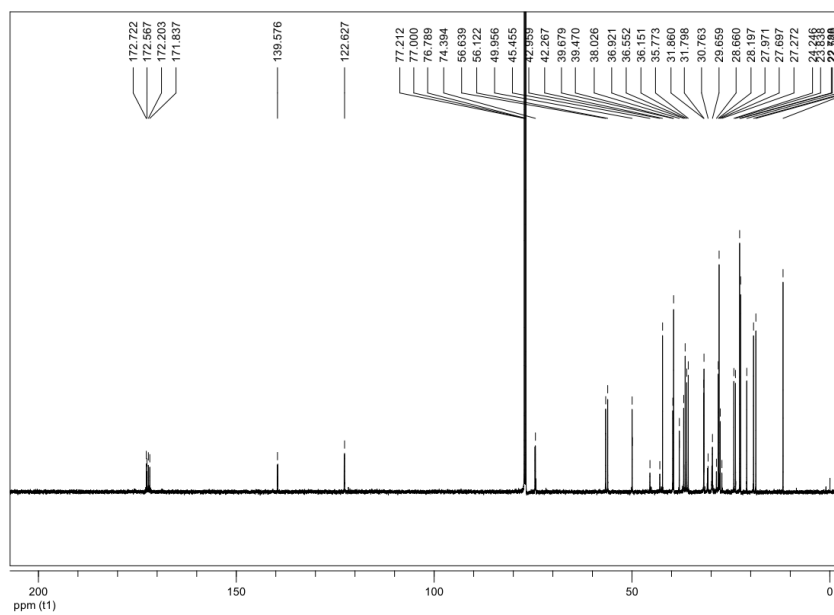


Figure S10. ¹³C NMR spectrum of compound 3 in CDCl₃.

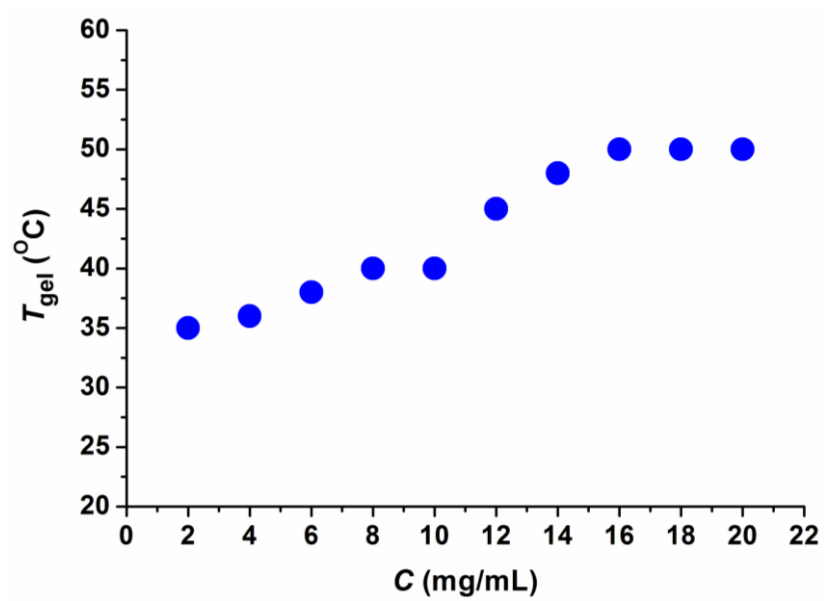


Figure S11. The sol-to-gel transition temperature (T_{gel}) versus concentrations of compound 3 in toluene.